

REMARKS

Claims 1, 3, and 6-27 are pending in the present Application. Claim 24 has been amended, leaving Claims 1, 3, and 6-27 for consideration upon entry of the present Amendment.

Claim 24 has been amended merely to correct a typographical error. Support for this amendment can at least be found in Claim 24 as originally filed. This amendment does not change the scope of the claim, add claims, or require any additional search.

No new matter has been introduced by this amendment. Reconsideration and allowance of the claims are respectfully requested in view of the above amendment and the following remarks.

Claim Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 1, 3, and 6-15 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the Specification in such a way as to reasonably convey to one skilled in relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicants respectfully traverse this rejection.

The language of Claim 1 that is the basis of this rejection is "adjusted before". Full support for this language can at least be found in Claim 2 as originally filed. The amendment incorporating that language into Claim 1 merely incorporated original Claim 2 into Claim 1. At that point, Claim 2 was cancelled. The Detailed Description was also amended to include this specific language with the amendment again getting support from the *originally filed* Claim 2.

MPRP 2163.06 states "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter." Since the language is clearly, fully, and identically supported in the originally filed Claim 2, the claims only contain subject matter which was described in the Specification in such a way as to reasonably convey that the inventors, at the time the application was filed, had possession of the claimed invention. No new matter was added to the specification or the claims by the language "adjusted before...".

Reconsideration and withdrawal of this rejection are respectfully requested.

Claim Rejections Under 35 U.S.C. § 102(b) and 35 U.S.C. § 102(e)

Claims 1, 3, and 6-27 stand rejected under 35 U.S.C. §102(b), as allegedly anticipated by U.S. Patent No. 5,652,275 to Buysch et al. Applicants respectfully traverse this rejection.

It is first noted that a major basis for these rejections is based upon the lack of the language "adjusted before" due to the 35 U.S.C. §112 rejection above. However, full support for "adjusted before" has been shown in originally filed Claim 2. Hence, this portion of these rejections is moot.

The Examiner then relies upon the explanation of a recycling process, mainly that it is a circular process, and therefore, "before" is relative to the vantage point. However, the claim does not merely say "adjusting before", it claims "the OH group concentration is adjusted before being subjected to either of the transesterification reaction or the polycondensation reaction". The Examiner states:

The term 'waste' is inclusive of polycarbonate that is reused whether from an article, land field or directly from a process reactor as long as it is already formed. Thus, in those terms, and as stated previously any such 'adjustments' or manipulation of the OH concentration could be viewed as being performed *before* the transesterification or the esterification process since, again, the method is a recycling process and thus may be continuous[.]

(Final Office Action dated 02/16/06 (hereinafter "FOA 02/06"), page 4) If this is intended to mean that, adjustment of OH group concentration during a transesterification reaction or a polycondensation reaction in a recycling process is equivalent to adjustment of OH group concentration before a transesterification reaction or a polycondensation reaction, Applicants respectfully disagree. This appears to assume that the OH group concentration of the polycarbonate waste resin "has been adjusted" (i.e., during the transesterification or polycondensation reaction). However, the polycondensate waste resin does not exist during the reaction. As explained by the Examiner, this waste is "from an article, land field or directly from a process reactor as long as it is already formed". Before it is "already formed", it is not polycarbonate waste resin. Hence, the step of adjusting the OH group concentration before a transesterification reaction or a polycondensation reaction is not fulfilled by polycarbonate waste resin that was produced in a process where an OH group concentration had been adjusted.

To anticipate a claim, a reference must disclose each and every element of the claim, *Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987).

Buysch et al. disclose a process for the chemical recycling of polycarbonates by catalyzed reaction with diaryl carbonates to oligocarbonates. (Abstract). As explained in prior responses, Buysch et al. at least fail to teach adjusting the OH group concentration before being subjected to either of the transesterification reaction or the polycondensation reaction, as is presently taught and claimed. Merely recycling polycarbonate resin waste does not adjust the OH group concentration of the polycarbonate waste component before the component is subjected to either of the transesterification reaction or the polycondensation reaction.

Additionally, Claim 16 of the present application claims method of recycling polycarbonate resin waste. This method comprises: introducing a dihydroxy compound and a carbonate diester to a mixing tank to form a mixing tank composition; directing the mixing tank composition to a prepolymerization tank to form a prepolymerization composition; melting a polycarbonate waste component; combining the prepolymerization composition with the melted polycarbonate waste component to form a combination; adjusting the OH group concentration of the polycarbonate waste component; polymerizing the combination to form a polycarbonate product; and extruding the polycarbonate product.

As noted above, to anticipate a claim, a reference must disclose *each and every element* of the claim. *Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987). Buysch et al. fail to disclose *each and every element* of Claim 16 and the claims that depend therefrom, the missing elements are not merely conventional. Applicants claim a method, and each and every element of the method must be given due weight. Buysch et al., for example, at least fail to teach forming the mixing tank composition, forming a prepolymerization composition, and combining melted polycarbonate waste component with the prepolymerization composition. It is further noted that Buysch et al. also at least fail to teach: adjusting the OH group concentration before polymerizing the combination (Claim 17), adjusting the OH group concentration before combining the prepolymerization composition with the melted polycarbonate waste component (Claim 18), adjusting the concentration by controlling the amount of polycarbonate waste component combined with the prepolymerization composition (Claim 27), as well as several other aspects of the claims such as the specific concentrations, etc.

Consideration that anticipation requires the teaching of all of the elements of the claims, and since Buysch et al. fail to teach or even suggest all of the elements of the present claims, Buysch et al. fail to anticipate the present claims. Reconsideration and withdrawal of this rejection are respectfully requested.

Claims 1, 3, and 6-27 stand rejected under 35 U.S.C. §102(e), as allegedly anticipated by U.S. Publication No. 2003/0065130 to Hahnsen et al. Applicants respectfully traverse this rejection.

Here the Examiner relies upon the argument that "adjustment", is dependent upon ones perspective of the continuing process; adjustment could be before, during, or after; it is a loop reaction. (FOA 02/06, page 7) The present claims specifically include "adjusting the OH group concentration of the polycarbonate waste component, wherein the OH group concentration is adjusted before being subjected to either of the transesterification reaction or the polycondensation reaction". (Claim 1) As explained above, a loop process does not mean that the polycarbonate waste component has an OH group concentration adjusted before the reaction.

The polycarbonate resin waste is not "already formed" at least until the reactions occur; it is not waste. Hence, there is no prior adjustment of the OH concentration of the polycarbonate resin waste. Since Hahnsen et al. at least fail to teach or suggest "adjusting the OH group concentration of the polycarbonate waste component, wherein the OH group concentration is adjusted before being subjected to either of the transesterification reaction or the polycondensation reaction" as presently claimed, they fail to anticipate the present claims.

Regarding Claim 16 and the claims dependent therefrom, it is alleged that "the use of the mixing tank is with no specific characteristics". (FOA 02/06, page 7) However, Claim 16 claims mixing certain components, namely: a dihydroxy compound and a carbonate diester to form a mixing tank composition; directing the mixing tank composition to a prepolymerization tank to form a prepolymerization composition; combining the prepolymerization composition with the melted polycarbonate waste component to form a combination; polymerizing the combination to form a polycarbonate product. In order to anticipate the present Claim 16, Hahnsen et al. must teach each of these elements. However, Hahnsen et al. merely teach obtaining residue of aromatic (co)polycarbonate production. (Abstract) They fail to teach *each*

and every process element presently claimed. For at least this reason, they fail to anticipate Claim 16.

With respect to the dependent claims, as with Buysch et al., Hahnsen et al. fail to teach many of the elements of the dependent claims, including adjusting the OH group concentration before polymerizing the combination (Claim 17), adjusting the OH group concentration before combining the prepolymerization composition with the melted polycarbonate waste component (Claim 18), and others.

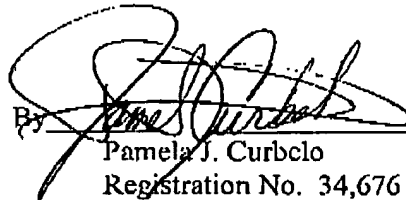
For at least these reasons, Hahnsen et al. fail to anticipate the present claims. Reconsideration and withdrawal of this rejection are respectfully requested.

It is believed that the foregoing amendments and remarks fully comply with the Final Office Action and that the claims herein are allowable to Applicants. Accordingly, reconsideration and withdrawal of the rejections and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0893.

Respectfully submitted,

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